

**REMARKS**

Claims 50-52, 55, 60-64, 67, 69, 70, 101 and 102 are pending in this application. By this Amendment, claim 102 is added.

Applicants appreciate the courtesies shown to Applicants' representatives by Examiner Ghyka in the November 7, 2005 personal interview. Applicants' separate record of the substance of the interview is incorporated into the following remarks.

On pages 3-5, the Office Action rejects claims 50-52, 55, 60-64, 67, 69, 70 and 101 under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 6,180,294 to Shiba in view of U.S. Patent No. 5,202,261 to Musho et al. (hereinafter "Musho") and U.S. Patent No. 5,477,352 to Hirai et al. (hereinafter "Hirai"). This rejection is respectfully traversed.

Shiba and Hirai were applied in rejecting the claims in the March 15, 2005 Office Action. The June 15, 2005 Request for Reconsideration specified extensive deficiencies with respect to Shiba and Hirai regarding the claims. The sole reference to these arguments in the Office Action appears in the first line on page 2. The Office Action does not substantively address any of the arguments made in the previous response. Nevertheless, Shiba and Hirai are again applied in rejecting the claims, now additionally in combination with Musho.

All of the language in the previous rejection with respect to Shiba and Hirai is repeated verbatim in the new rejection, except that the final sentence of the rejection is slightly reworded. Thus, all of the arguments made in the June 15, 2005 Request for Reconsideration still apply to the new rejection.

Specifically, Shiba discloses a method of coloring a resin layer. The resin layer disclosed in Shiba is not formed by ink-jet printing. Further, the resin layer disclosed in Shiba coats the entire surface. It is not patterned as recited in the rejected claims. Similarly, Hirai does not disclose a layer formed of a semiconducting organic material by ink-jet printing. Likewise, Hirai does not disclose a patterned layer.

The new rejection also adds one new sentence at the end of the second paragraph of the rejection on page 3 regarding Shiba. This new sentence regarding Shiba implies incorrectly that Shiba teaches ink-jet printing of the polymer layer. However, the Office Action does not expressly assert that Shiba teaches ink-jet printing of the polymer layer.

In addition to repeating verbatim all of the language contained in the previous rejection with respect to Shiba and Hirai, the new rejection includes new language regarding the newly asserted disclosure of Musho. However, Musho does not disclose a patterned layer. In fact, Musho teaches away from forming a patterned layer. In Musho, there is no discontinuous or fine pattern for the film/layer 16 in the diagnostic test device 10. Rather, in Musho, the only requirement is that there be a film/layer 16 formed of a certain thickness. See col. 31, lines 21-25. A person having an ordinary level of skill in the art at the time the application was filed would recognize that the use of the term "pattern" in the present specification requires a design arrangement and/or structure other than a solid, continuous layer, even when formed of dots on a microscopic scale. Thus, a pattern, according to the rejected claims is not a solid layer, and a solid layer is not such a pattern regardless of the possible presence of variations in the surface arising as artifacts of the process of ink-jetting a continuous layer.

Further, Musho does not disclose, teach or suggest forming a microscopic pattern of dots by ink-jet printing. Rather, Musho clearly discloses that conducting polymer 16 is a solid layer, consistent with continuous film 18. Col. 19, lines 16-18. The purpose of conducting polymer 16 is to contact with the microelectrode assembly 20. Col. 20, lines 57-61. The purpose of that contact is so the microelectrode assembly 20 can detect a change in the conductivity of the conducting polymer 16. Col. 20, lines 61-64. Any change in the conductivity of the conducting polymer 16 must be exhibited and measured rapidly.

Musho clearly teaches that it is necessary, "to achieve the full advantage of the present invention" that, "the rate of increase in conductivity is measured" with an extremely quick response time, "preferably from within 5 seconds to 10 seconds." Col. 21, lines 3-9. In other words, a discontinuity in the conducting polymer 16 as the result of that polymer 16 containing any pattern, instead of a completely continuous solid layer, would frustrate the intended use of the disclosure of Musho. Thus, Musho strongly teaches away from forming a pattern on a substrate as recited in the rejected claims, and even teaches away from discontinuities in the conducting polymer 16 on the microscopic level.

The Office Action does not contain an allegation that Musho discloses forming a patterned layer. The only use of the word pattern in the rejection is in the first sentence of the second paragraph of the rejection in association with the discussion of Shiba. Thus, the Office Action appears to rely only on Shiba for the disclosure of a pattern. However, Shiba does not disclose forming a patterned layer as recited in the claims for the reasons already argued in the June 15, 2005 Request for Reconsideration.

In summary, neither Hirai nor Musho disclose forming any patterned layer of any description. Shiba only discloses forming a colored pattern by ink-jet printing on top of a resin layer. Shiba does not disclose forming a patterned layer of a semiconducting organic material by ink-jet printing. Thus, the combination of Shiba, Musho and Hirai fails to disclose, teach or suggest all of the limitations recited in the rejected claims. Further, there is no teaching or suggestion in Shiba that the colored pattern taught therein be applied to the semiconducting layer in any of Hirai, Musho or Shiba.

During the November 7 personal interview, Examiner Ghyka pointed out that the only recitation of "a pattern" in broader claim 50 appears in the preamble of the claim. Examiner Ghyka requested clarification of the law supporting Applicants' position that patentable

weight should be given to this recitation of "a pattern" in the preamble of the claim.

Applicants respectfully submit that the law requested by Examiner Ghyka is as follows.

The introductory portion of a claim, prior to the statement of the elements or steps of the claimed invention, is called the preamble. In general, the preamble language may or may not limit the scope of the claim. Claim preambles other than Jepson preambles have the import that the claim as a whole suggests for it. There is no absolute rule according or denying all preambles limiting effect. In general: i) the preamble is denied the effect of a limitation where the claim apart from the introductory clause completely defines the subject matter of the invention, and the preamble merely states a purpose or intended use of that subject matter; but ii) the preamble is given the effect of a limitation in those cases where the introductory phrase is deemed essential to point out (give "life, meaning and vitality to") the invention defined by the claim. *Bell Communications Research Inc. v. Vitalink Communications Corp.*, 55 F.3d 615, 621 (Fed. Cir. 1995). See also, *Storage Tech. Corp. v. Cisco Sys. Inc.*, 329 F.3d 823, 830-32, 834-35 (Fed. Cir. 2003) ('040 patent specification demonstrates that preamble term "policy cache" serves as a "convenient label for the invention as a whole," but does not require a cache in a claim element not otherwise requiring it; '170 patent specification and prosecution history make clear that both claimed processors are included in preamble's "forwarding device"); *Catalina Mktg. Int'l Inc. v. Coolsavings.com, Inc.*, 289 F.3d 801, 807-10 (Fed. Cir. 2002) (claims, specification and prosecution history demonstrate that preamble phrase "located at predesignated sites such as consumer stores" does not limit claim but merely describes intended use for claimed terminals); *IMS Tech., Inc. v. Haas Automation, Inc.*, 206 F.3d 1422, 1434-35 (Fed. Cir. 2000) (preamble phrase "control apparatus" is merely a descriptive name for the claimed invention that does not limit the claim to a control apparatus separate from a machine tool); *Pitney Bowes Inc. v. Hewlett-Packard Co.*, 182 F.3d 1298, 1305 (Fed. Cir. 1999) ("if the body of a claim fully and

intrinsically sets forth the complete invention, including all of its limitations, and the preamble offers no distinct definition of any of the claimed invention's limitations, but rather merely states, for example, the purpose or intended use of the invention, then the preamble is of no significance to claim construction because it cannot be said to constitute or explain a claim limitation").

The determination of whether preamble recitations are structural limitations or mere statements of purpose or use requires review of the entire patent to gain an understanding of what the inventors actually invented and intended to encompass by the claim. *Rowe v. Dror*, 112 F.3d 473, 478 (Fed. Cir. 1997). *See also, Gen. Elec. Co. v. Nintendo Co.*, 179 F.3d 1350, 1361-62 (Fed. Cir. 1999) (preamble recitation of a "raster scanned display device" given effect as a positive limitation because the specification makes clear that the inventors were working on the particular problem of displaying binary data on a raster scan display device, and not general improvements to all display systems; thus reading the claim "indiscriminately to cover all types of display systems would be divorced from reality"); *Corning Glass Works v. Sumitomo Elec. U.S.A., Inc.*, 868 F.2d 1251, 1257 (Fed. Cir. 1988) (preamble term "optical waveguide" given limiting effect for similar reasons as expressed above vis-à-vis *Gen. Elec.*).

Here, Applicants respectfully submit that it is clear the recitation of a pattern in the preamble of claim 50 is clearly a structural limitation as distinguished from a mere statement of purpose. It is structural that a pattern is formed. A review of the entire specification makes clear that the pattern recited in the preamble is a structural limitation for the claim, not a mere statement of purpose. It is clear from a review of the specification that the Applicants intended the claim to encompass the structure of a pattern. Thus, it is respectfully submitted that upon applying the applicable law, the recitation of a pattern in the preamble should be treated as a structural limitation on the scope of the claim.

On February 27, 2002, Applicants filed a Request for Declaration of Interference in this application. Concurrent therewith, Applicants filed a Petition for Consolidation of three interferences identifying U.S. Patent Applications having Serial Nos. 09/901,097 and 09/901,126 as co-pending U.S. patent applications in which corresponding Requests for Declaration of Interference were concurrently filed.

During the November 7, 2005 interview, Examiner Ghyka requested that the Applicants identify the co-pending application(s) in which the claims corresponding to the claims of this application have been examined. In response, Applicants hereby inform Examiner Ghyka that claims 50-52, 55, 60-64, 67, 69, 70 and 101 are pending in identical form, and have been examined, in U.S. Patent Application No. 09/901,097.

Further, during the November 7, 2005 interview, Examiner Ghyka requested that the Applicants inform him of the status of these examined and corresponding co-pending claims. In response, Applicants inform Examiner Ghyka that the claims corresponding to pending claims 52, 55, 60-64, 67, 69, 70 and 101 have been allowed in U.S. Patent Application No. 09/901,097. The claims corresponding to claims 50 and 51 stand rejected in that application.

Hirai, Musho and Shiba are all prior art of record in U.S. Patent Application No. 09/901,097. Thus, claims corresponding to claims 52, 55, 60-64, 67, 69, 70 and 101 have been allowed over Hirai, Musho and Shiba in U.S. Patent Application No. 09/901,097. The arguments made herein regarding the patentability of the claims over Hirai, Musho and Shiba are the same as arguments made in U.S. Patent Application No. 09/901,097 regarding the patentability of these claims.

For at least the foregoing reasons, it is respectfully requested that the rejection of claims 50-52, 55, 60-64, 67, 69, 70 and 101 as being unpatentable over Shiba in view of Musho and Hirai be withdrawn. Claim 102 is allowable for reasons similar to the reasons argued above regarding claim 50.

In view of the foregoing, it is respectfully submitted that this application is in condition for allowance. Favorable reconsideration and prompt allowance of claims 50-52, 55, 60-64, 67, 69, 70, 101 and 102 are earnestly solicited.

Should the Examiner believe that anything further would be desirable in order to place this application in even better condition for allowance, the Examiner is invited to contact the undersigned at the telephone number set forth below.

Respectfully submitted,



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